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# THE JOURNAL OF PHILOSOPHY

## PSYCHOLOGY AND SCIENTIFIC METHODS

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### PRAGMATISM AS INTERACTIONISM

#### I

THE doctrine of pragmatism or instrumentalism—which, however diverse its elements and its manifestations, has at least the unity of a continuous process of development—began as a theory about what thinking is; it has of late come to be chiefly a theory about what thinking does. Its point of departure lay in the provinces of logic and epistemology. James's earliest formulation of the doctrine was an attempt to define the conditions under which ideas and judgments possess meaning, and to formulate the generic nature of all "meanings." This soon developed into a theory concerning the nature of knowing, and the meaning, and consequently the criterion, of truth; and from this followed certain conclusions as to the scope of possible knowledge and the limits of genuinely significant philosophical discussion. These epistemological preoccupations, though not absent, seem distinctly subordinate in the latest collective manifesto of our American pragmatists, the volume of essays entitled *Creative Intelligence*. The outstanding thesis of that volume appears to be the one indicated in its title, that man's "intelligence" is genuinely efficacious and "creative." The several contributors (it is intimated in the prefatory note), while by no means professing any complete identity of doctrine, "agree in the idea of the genuineness of the future, and of intelligence as the organ for determining the quality of the future, so far as it can come within human control." There is, of course, in this nothing which conflicts with the earlier formulations of pragmatism to which I have referred; the thesis of the creative efficacy of reflective thought develops naturally from those earlier formulas, and from some of them, perhaps, necessarily. Nevertheless, a feature of the doctrine which earlier was often left implicit has now apparently come to be looked upon by pragmatists as their most essential and distinctive contention.

But with this shift of emphasis it becomes plain that the chief

significance of pragmatism lies in its bearings, not upon logic or epistemology, but upon metaphysics, and, more specifically, upon the philosophy of nature. Its principal quarrel—little as some pragmatists seem able to distinguish their enemies from their friends—should be with mechanistic “naturalism,” with the dogma that the laws of the more complex and later-evolved processes of nature can be “reduced” to, and may eventually be deduced from the laws of the simpler processes—that “consciousness” is nothing but movements of the muscles, that muscular movements are wholly explicable by the principles of physiology, that the categories and explanatory principles of physiology can be “fetched back” to those of chemistry, these be resolved into the dynamics of the molecule, and the entire spectacle of nature, despite its seeming variety, finally be shown to be nothing but the manifestation of a few simple laws of the relative motion of particles or of mass-points. The opposition of pragmatism to this type of doctrine is evident from its denial of an essential part of the mechanistic creed—its denial, namely, of parallelism and all other forms of epiphenomenalism. Against whom but the epiphenomenalist does pragmatism need (in Professor Dewey’s words) to “enforce the pivotal position of intelligence in the world and thereby in control of human fortunes (so far as they are manageable)”? Is it not the familiar mechanistic doctrine that

The first morning of creation wrote  
What the last dawn of reckoning shall read,

that is described by Professor Dewey in the following terms: “Thinking was treated as lacking in constructive power; even its organizing capacity was but simulated, being in truth nothing but arbitrary pigeon-holing. Genuine projection of the novel, deliberate variation and invention, are idle fictions in such a version of experience. If there ever was creation, it all took place at a remote period.”<sup>1</sup> But to this doctrine Professor Dewey tells us that the antagonism of his own philosophy is absolute. Similar protest against the “block-world” of naturalism is made by nearly all the writers in *Creative Intelligence*; the following passage, by Professor G. H. Mead, is typical: “The individual in his experience is continually creating a world which becomes real through his discovery. In so far as new conduct arises under the conditions made possible by his experience and his hypotheses the world . . . has been modified and enlarged.”<sup>2</sup>

In an earlier volume Professor Dewey even more plainly indi-

<sup>1</sup> *Creative Intelligence* (hereafter cited as *C. I.*), p. 23.

<sup>2</sup> *C. I.*, p. 225.

cated the import of his own philosophy, by an express repudiation of Mr. Santayana's familiar and striking formulation of epiphenomenalism, first printed in this JOURNAL.<sup>3</sup> The belief "which attributes to thought a power, by virtue of its intent, to bring about what it calls for, as an incantation of exorcism might do," seemed to Mr. Santayana merely "a superstition clung to by the unreconciled childishness of man." "The consequences of reflection," he wrote, "are due to its causes, to the competitive impulses in the body, not to the wistful lucubration itself; for this is mere poetry. . . . Consciousness is a lyric cry in the midst of business." On the contrary, writes Mr. Dewey, "if one understands by consciousness the function of effective reflection, then consciousness is a business—even in the midst of writing or singing lyrics."<sup>4</sup> The essential thesis of the volume of *Essays in Experimental Logic* is "that intelligence is not an otiose affair nor a mere preliminary to a spectator-like apprehension of terms and propositions." In the eyes of a pragmatist, "faith in the creative competency of intelligence was the redeeming feature of the historic idealisms."<sup>5</sup>

In view of such dicta as these, one naturally looks to pragmatist writers for a connected and comprehensive discussion of the problem of interaction and of the older types of doctrine concerning the psychophysical relation. The passages which have been quoted from Professor Dewey and others, and many more like them, fairly bristle with suggestions of questions to which one desiderates answers from the same philosophers. What is this "intelligence" which the pragmatist apparently credits not only with the ability to push molecules about, but also with the power to enrich the universe with new contents? Does it or does it not include any entities or any processes not definable in ordinary physical categories? When matter is moved by "intelligence," is the intelligence itself matter? or a motion of matter? or a form of energy which must find its place in the equations of thermodynamics? or something other than any of these? How is the thesis of its efficacy in the physical world to be adjusted to the generalizations of physical science about the motion of masses and particles? Does that thesis presuppose such views about natural laws and their logical relations as have been set forth by Boutroux in his *Contingence des lois de la nature*, or a doctrine of the "heterogeneity and discontinuity of phenomena" such as is defended by Boex-Borel in his *Le Pluralisme*?

To these questions the representatives of pragmatism offer less

<sup>3</sup> Vol. III., 1906, p. 412.

<sup>4</sup> *Essays in Experimental Logic* (hereafter cited as *E. L.*), p. 18.

<sup>5</sup> *E. L.*, p. 30.

direct and less thorough and connected answers than could be desired; but we are not left wholly without light upon the matter. The nearest approach, so far as I can recall, to a fairly full treatment of this issue from the pragmatist's point of view, is to be found in Professor Bode's essay in *Creative Intelligence*. Here we get a somewhat extended statement of reasons for rejecting the "doctrine that conscious behavior is nothing more than a complicated form of reflex, which goes on without any interference on the part of mind or intelligence." According to parallelism, in Bode's words "intelligence adds nothing to the situation except itself. The psychic correlate is permitted to 'tag along,' but the explanations of response remain the same in kind as before they reached the level of consciousness. . . . The explanation of behavior, is to be given wholly in terms of neural organization."<sup>6</sup>

Such a view, Professor Bode contends, is inadmissible because it conflicts with clear empirical evidence; "some facts persistently refuse to conform to the type of mechanism, unless they are previously clubbed into submission." What are these facts? Professor Bode enumerates three: "foresight," "the sense of obligation," and the process of reasoning. The two former "must learn to regard themselves as nothing more than an interesting indication of the way in which the neural machinery is operating, before they will fit into the [parallelistic] scheme." Mr. Bode does not develop his argument here as fully as one could wish; he merely points out these two implications of epiphenomenalism and assumes that, once stated, they will immediately be recognized by the reader as absurdities. But the argument based upon the occurrence of reasoning in man is somewhat more explicitly stated; it seems to consist in the observation that, if parallelism (or a purely mechanistic behaviorism) were accepted, the notion of validity, of truth and error, would become meaningless. By the mechanistic theory "the progress of an argument is in no way controlled or directed by the end in view, or by considerations of logical coherence, but by the impact of causation. Ideas lose their power to guide conduct by prevision of the future, and truth and error consequently lose their significance, save perhaps as manifestations of cerebral operations. . . . [In] a description of this kind everything that is distinctive in the facts is left out of account, and we are forced to the conclusion that no conclusion has any logical significance or value."<sup>7</sup>

It is interesting thus to observe a pragmatist vindicating the most important thesis in his doctrine by a method which has most fre-

<sup>6</sup> *C. I.*, p. 251.

<sup>7</sup> *C. I.*, p. 257.

quently been exploited in recent philosophy by the partisans of idealism—the method, namely, of testing a metaphysical theorem by inquiring whether it is consistent with the postulate of the possibility of error, and whether it leaves room for a “world of values.” Concerning the cogency of this or the other suggested arguments against epiphenomenalism I shall not, at this point, inquire; it is more to my present purpose to point out that, while thus attacking parallelism, Professor Bode apparently conceives that he can avoid falling into any position properly to be described as interactionism. By the latter theory, he observes, “a certain importance is indeed secured to mental facts”; but “so far as purposive action is concerned we are no better off than we were before.” For “the mental is simply another kind of cause; it has as little option regarding its physical effect as the physical cause has with regard to its mental effect. Non-mechanical behavior is again ruled out, or else a vain attempt is made to secure a place for it through the introduction of an independent psychic agency.”<sup>8</sup> “The only difference between the two doctrines”—and to Professor Bode this is apparently an unimportant difference—is “the question whether it is necessary or permissible to interpolate mental links into the causal chain.”<sup>9</sup>

I am not certain that I understand either the criticism of the doctrine of interaction which these sentences are meant to convey, or the nature of the *tertium quid*—neither interactionism nor parallelism, as usually understood—which Professor Bode intends to propound. But if I at all follow him, his objections to admitting interaction are two, involving quite distinct considerations. (a) The first objection would seem to be based upon the assumption of a sort of indeterminism. Even the theory of interaction assigns “mental” causes for physical events; and Mr. Bode seems to imply that the recognition of *any* kind of cause “which has no option with regard to its effects” amounts to a denial of the “creative” efficacy of consciousness. Behavior is apparently still too “mechanical” if it is subject to any uniform determination whatever. Here we have the Romantic, the ultra-Bergsonian view, which rejects both mechanism and ordinary interactionism for, ultimately, one and the same reason, *viz.*, that they both seem to exclude “invention,” pure innovation, true freedom. (b) But Professor Bode’s other suggested objection to interactionism appears to be brought from quite another quarter of the philosophical horizon. It is that the interactionist attributes efficacy to a “psychic agency,” whereas nothing “psychic” exists, either as an active or an otiose element in reality. This, at

<sup>8</sup> *C. I.*, p. 253.

<sup>9</sup> *C. I.*, p. 251.

least, I take to be the point of a passage of Professor Bode's in which he explains the source of the "difficulties" about interaction, and, indeed, of "most of our philosophic ills." That source is "the prejudice that experience or knowing is a process in which the objects concerned do not participate and have no share." This error, it seems, has led philosophers to invent imaginary entities in order to solve spurious problems generated by the error itself. But "a careful inventory of our assets brings to light no such entities as those which have been placed to our credit. *We do not find body and object and consciousness, but only body and object. . . . The process of intelligence is something that goes on, not in our mind, but in things: it is not photographic, but creative.*"<sup>10</sup> From such expressions one gathers that Professor Bode further objects to the theory of interaction because it presupposes psycho-physical dualism—because it implies the reality of two classes of entities profoundly different in their attributes and modes of operation. "Bodies" and "objects" may, he intimates, be said to "interact," but not "bodies" and "minds"; for there are no minds. No facts are to be found in experience which require a "subjectivistic" or "psychic interpretation."<sup>11</sup> Even abstract ideas do not "compel the adoption of a peculiarly 'spiritual' or 'psychic' existence in the form of unanalyzable meanings."<sup>12</sup>

Of the two types of objection to interactionism thus suggested by Professor Bode, the former will not be considered in this paper. I omit it partly in the interest of brevity, partly because I am in doubt whether Professor Bode himself seriously means to assert the view which his words at this point seem to imply, and partly because it appears questionable whether other pragmatists share that view. But the second of his anti-interactionist arguments is an application to the question in hand of a thesis frequently recurrent in the writings of Professor Dewey and others of the same school. Most pragmatists apparently share with the neo-realist and the behaviorist a violent aversion to psychophysical dualism. Pragmatism, Professor Dewey writes, "has learned that the true meaning of subjectivism is just *anti-dualism*. Hence philosophy can enter again into the realistic thought and conversation of common-sense and science, where dualisms are just dualities, distinctions having an instrumental and practical, but not ultimate, metaphysical worth; or rather, having metaphysical worth in a practical and experimental sense, not in that of indicating a radical existential cleavage in the

<sup>10</sup> *C. I.*, pp. 254-255; italics mine.

<sup>11</sup> *C. I.*, p. 270.

<sup>12</sup> *C. I.*, p. 245.

nature of things.”<sup>13</sup> For pragmatism, therefore, “things are no longer entities in a world set over against another world called ‘mind’ or ‘consciousness,’ with some sort of mysterious ontological tie between them.” The pragmatist “tends to take sensations, ideas, concepts, etc., in a much more literal and physically realistic fashion than is current.”<sup>14</sup>

This hostility to dualism is, it is true, directed primarily and most frequently against dualistic epistemology, the doctrine that (as Mr. Dewey’s unfriendly summary puts it) “the organ or instrument of knowledge is not a natural object, but some ready-made state of mind or consciousness, something purely ‘subjective,’ a peculiar kind of existence which lives and moves and has its being in a realm different from things to be known.”<sup>15</sup> “To say the least,” observes Professor Dewey elsewhere, this conception “can be accepted by one who accepts the doctrine of biological continuity only after every other way of dealing with the facts has been exhausted.”<sup>16</sup> But it is evident that when the pragmatist denies the reality of any “psychic,” “subjective” or “mental” entities as factors in cognition, he also, both by implication and intent, repudiates the dualistic presuppositions of the theory of psychophysical interaction.

Thus, to recapitulate, we find the pragmatist asserting the determination of (some) events—*i.e.*, of certain motions of matter—by a causal factor called “intelligence” or “reflection”; insisting upon the uniqueness of this mode of determination, its irreducibility to purely mechanical or physicochemical or physiological laws; and at the same time denying the existence of any “psychical” (*i.e.*, non-physical) elements in experience or in “behavior,” whether as causes or effects or mere concomitants. The peculiar combination of doctrines, then, which constitutes the typical pragmatistic view upon the problem with which the older controversies between parallelism and interactionism were concerned, must apparently be described as an anti-mechanistic materialism.<sup>17</sup> Intelligence—it clearly

<sup>13</sup> This JOURNAL, Vol. II., p. 326.

<sup>14</sup> *Loc. cit.*

<sup>15</sup> *Influence of Darwin, etc.*, p. 98.

<sup>16</sup> *C. I.*, p. 35.

<sup>17</sup> I do not wish to be understood to assert that pragmatists in general, or even that any of the school, adhere to this position consistently; for they appear to me to adhere to no position consistently. I am, for example, after careful study of Professor Dewey’s utterances on the subject, wholly unable to reconcile such passages as have above been cited, as to the “physically realistic” implications of pragmatism and its harmony with the “realistic thought and conversation of common-sense and science,” with numerous other passages of his in which pragmatism is identified with “immediate empiricism,” *i.e.*, with the



seems to follow from the conjunction of the passages already cited—is an affair of “bodies,” not of “mind” or mental entities of any kind; but bodies, when they behave in the special fashion called “intelligent” or “reflective,” are exhibiting a mode of action not exemplified elsewhere in nature; and by this action they cause the directions and velocities of motion of other masses to be different from what they would be if intelligence were (and where it is) inoperative. As Professor Bode puts it, we must recognize in what (with seeming incongruity) he calls “conscious behavior, a distinctive mode of operation,” “the advent of a new category”; if we do not, “intelligence becomes an anomaly and mystery deepens into contradiction.”<sup>18</sup>

Is this combination of doctrines, this attempt to vindicate the creative efficacy of intelligence while repudiating psychophysical dualism, a stable logical compound? Is it consistent either with pragmatistic principles or with the facts of that particular type of “situation” with which pragmatic analysis has been characteristically preoccupied? To these questions the next instalment of this paper will be devoted.

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### THE OBSOLESCENCE OF CONSCIOUSNESS

BELIEF in what is vaguely called the subconscious exposes one nowadays to no risk of appearing mystical. The most tough-minded of mechanists can without apology direct his attention to the simmerings and eruptions of those subterranean psychic regions above which flow the quieter streams of waking life. In fact, the taint of supernaturalism having been removed from dreams, hypnotic trances, premonitions, and the sudden impassioned outbursts once doctrine that only that which is immediately experienced can be known, and that things *are* (merely) “what they are experienced as.” Such a doctrine, Professor Dewey declares, “doesn’t have any non-empirical realities,” such as “things-in-themselves,” “atoms,” etc. (*Influence of Darwin*, p. 230); yet such things, surely, play a great part in the “realistic thought and conversation of common-sense and science.” The truth is—as I have, I think, shown in a paper in the forthcoming volume of *Essays in Critical Realism*—that the pragmatism of Professor Dewey and others involves a hopelessly incongruous union of two fundamental principles, “radical empiricism” and the true pragmatic method, of which the former is idealistic and the latter realistic in its implications. In the present paper, I am assuming that pragmatists mean what they say in their realistic passages, and am disregarding utterances which are in flat opposition to those passages.

<sup>18</sup> *Loc. cit.*